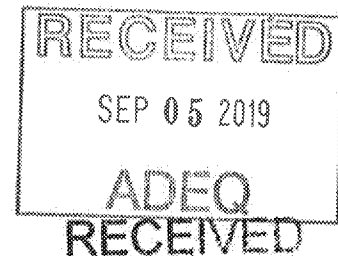


Ronnie P. Hawks
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September 5, 2019

Trevor Baggione
Water Quality Division Director
Arizona Department of Environmental Quality
1110 West Washington Street
Phoenix, Arizona 85007



Maribeth Greenslade
Associate Environmental Engineer
Groundwater Protection Value Stream
Arizona Department of Environmental Quality
1110 West Washington Street
Phoenix, Arizona 85007

SEP - 6 2019

K.B.

Water Quality Division
Water Permits Section

Re: Florence Copper Inc.
Significant Amendment to APP No. P-101704 (ID No. 76820)

Dear Mr. Baggione and Ms. Greenslade:

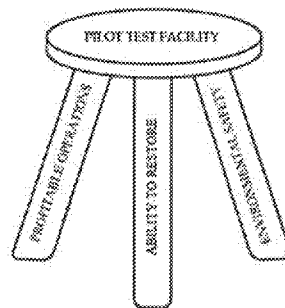
As you know, Florence Copper Inc. (FCI) proposes to conduct acid solution copper mining at a 1,342 acre site located in the geographic center of the Town of Florence, Arizona. Mining will be done by injecting sulfuric acid into an ore body which lies below the local groundwater table and which is hydrologically connected to the regional drinking water aquifer. The mine is next to existing and planned residential communities that depend on groundwater resources that could be impacted by the mine. FCI is currently operating a small Pilot Test Facility (PTF) that is intended to demonstrate to itself and its shareholders that full-scale mining will be profitable, and demonstrate to the State and the communities that rely on clean drinking water from the aquifer that full-scale mining is environmentally safe and can be successfully cleaned up with no damage to the aquifer. Under the Temporary Aquifer Protection Permit (Temporary APP) that governs operation of the PTF, clean-up of groundwater impacted by PTF operations is required to begin early next year.

Over the years, FCI has consistently stated that the pilot project will be the means by which they prove that acids, heavy metals, and other contaminants can be removed



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from the mine area and the groundwater restored. However, in its recently submitted application for full commercial operations, FCI places profitability over its promise to prove to the State and the local communities that its operations are environmentally safe and the aquifer can be restored. FCI now proposes to begin commercial mining without having shown the ability to do an adequate clean-up.¹ The PTF was purportedly premised upon demonstrating that in-situ leach mining could be conducted at this site safely and profitably and that groundwater could be restored once mining was complete. FCI now proposes to remove one of those 3 key foundations of the PTF completely, which in turn seriously undermines another—FCI's ability to demonstrate that in-situ mining can be conducted safely.



THE AUTHORIZED PILOT PROJECT.

FCI holds mining permit APP P-101704 issued by ADEQ to FCI's predecessor in 1997. The permit authorizes construction and operation of a commercial scale in-situ copper mine within what is now the Town of Florence. In 2011, FCI applied for a permit amendment to initiate commercial mining. In response, ADEQ asked the company to address numerous questions, many aimed at showing the environmental safety of acid leach mining. As one means of answering these questions, FCI agreed to build a pilot project to prove the real-world performance of its mining process; demonstrate profitable operation to its shareholders; and prove to the State and Florence residents that its operations are environmentally safe and that the aquifer can be restored once mining is complete.

¹ The Temporary APP does not require groundwater to be restored to pre-mining conditions. FCI is only required to meet permit standards, many of which are significantly higher than background. For instance, FCI may leave sulfate concentrations in groundwater beneath its facility at concentrations that are nearly 3 times the secondary drinking water standard, leaving it unusable as a drinking water supply.



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The pilot project is authorized in ADEQ temporary permit APP P-106360. That permit allows for two years of pilot operations, with solution mining occurring for about 14 months, to be followed by mine block rinsing for at least 9 months, with final wrap-up within 24 months total. Actual pilot scale mining began in December 2018, so under the current permit FCI's clean-up must be complete before the end of 2020.

FCI's unwavering commitment to limit the PTF to a two-year project that will end with complete aquifer restoration is expressed in numerous documents, including the permit, public notices and statements, sworn testimony, and commitments by your agency. FCI has repeatedly indicated that the intent of the PTF is "to demonstrate the safety and viability of [in situ leach mining] at the Property **before attempting full-scale commercial operations.**"² ADEQ also has stated in sworn testimony that the PTF is intended to "gain information regarding site conditions and project feasibility."³ FCI also has repeatedly assured the public that "This production test will demonstrate to residents, the regulatory agencies such as the EPA and the ADEQ, that ISCR is a safe and proven process."⁴ Just last year, FCI declared that the PTF would "**demonstrate**" "hydraulic control of solutions;" "suitability of permit conditions;" "hydraulic control pumping requirements;" and the validity of FCI's "leaching model." The PTF also was touted as testing numerous aspects of the "commercial scale wellfield;" evaluating "well spacing;" and evaluating "water treatment methodologies."⁵

Despite ample historical evidence that similar in situ leach operations have never been able to restore groundwater to pre-mining conditions, ADEQ and FCI have repeatedly assured the public that groundwater restoration will be conducted and proven successful as part of the PTF process in support of a commercial permit.⁶ And ADEQ

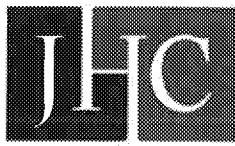
² *Town of Florence v. ADEQ*, No. 12-005WQAB, *FCI's Post-Hearing Brief*, at 28-29 (July 21, 2014) (citing testimony of Dan Johnson for FCI) (emphasis added). In the 2013-2014 appeal of the Temporary APP, FCI and ADEQ touted the groundwater restoration requirements as one of "multiple layers of protection" to ensure against vertical and horizontal migration of pollutants into the drinking water aquifer. See, e.g., *Town of Florence v. ADEQ*, No. 12-005WQAB, Transcript of Proceedings—Day 15, at 169 (Apr. 7, 2014). And FCI indicated that groundwater restoration is "one of the important aspects of the project." *Id.*, Day 21, at 41 (Apr. 16, 2014).

³ *Town of Florence v. ADEQ*, No. 12-005WQAB, *FCI's Post-Hearing Brief*, at 24 (July 21, 2014).

⁴ FCI, *Florence Copper Fact Sheet* (Sept. 24, 2015). (<https://www.florencecopper.com/assets/docs/FlorenceCopper-FactSheet.pdf>) (emphasis added).

⁵ FCI, *Florence Copper Site Tour*, at 31 (Oct. 16, 2018) (emphasis added).

⁶ See, e.g., *Town of Florence v. ADEQ*, No. 12-005WQAB, Transcript of Proceedings—Day 23, at 95-96 (Apr. 18, 2014) ("Q [by attorney Glass]. I think we talked about restoration cleaning . . . A [by FCI consultant Nichols]. . . in fact, neutralization is currently being tested and has been



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has acknowledged that it needs to review groundwater restoration data from the PTF before it issues a commercial permit.⁷

FCI'S NEW PROPOSAL RENEGES ON COUNTLESS PROMISES MADE.

On January 12, 2019, FCI submitted to ADEQ an application for a Significant Amendment" to the 1997 commercial permit. Among other content, the application proposes to put the PTF under the umbrella of the commercial permit. This was not unexpected, as we believe that restoration could easily take longer than the 9 months that would remain under the Temporary APP.

However, FCI now asks permission to continue operating the PTF well field beyond the current Temporary APP two-year limit. FCI wants to include the PTF mine as part of the commercial permit and mine the PTF ore body until the mineral resource has been entirely mined out, which they estimate will take approximately four years. The restoration obligation and schedule in the existing permit will not be honored, and thus commercial mining will begin without FCI having proven its ability to restore the aquifer.

FCI justifies its proposal as "the most efficient means to recover the copper from the PTF well field and will conserve water and energy resources." The application places profits ahead of proving that restoration is possible, let alone financially feasible. It has always been the case that the pilot project will not be as profitable as a normal mine, but profits were not supposed to be the driving factor behind the requirements of the Temporary APP. The Temporary APP was supposed to demonstrate that mining could be conducted safely, and that groundwater could be cleaned up once mining was finished. Having gotten its permits to begin mining, FCI now wants to abandon its commitments.

tested for the last year or so in laboratory studies . . . Q. So those are being evaluated, **so when the tests are done in the field, they will be well understood?** A. That's right. Q. **And so the restoration will be better understood?** A. Yes. Q. **And isn't that ultimately the purpose of a pilot test?** A. It is." (emphasis added).

⁷ *Town of Florence v. ADEQ*, No. 12-005WQAB, Transcript of Proceedings—Day 10, at 132-33 (Mar. 31, 2014) ("Q.: And so if there is important data from the PTF that goes to issues regarding a commercial permit, you're going to want to make sure that the data is properly reviewed and considered before issuing a commercial permit; correct? J.Smit [ADEQ Groundwater Section Manager]: If I understand you correctly, yes, I would want proper data from this -- and complete data from this test and any other tests that need to be done before I could issue a commercial permit. Q. And I assume that would include data regarding FCI's ability to rinse and restore the site following the period of injection? J.Smit: Yes. I would need the rinsing data to confirm that they can do it on a large scale before issuing that permit.").



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FCI's 2019 application notes that the PTF permit was initially granted in 2013, then amended and issued in 2016. But FCI does not acknowledge that the 2016 amended permit was the outcome of SWVP's litigation, or that in litigation, FCI has always promised that PTF remediation would be completed within the two-year permit period. FCI never even attempts to explain why it is reasonable to proceed with commercial mining without proving its ability to restore water quality, especially when nothing has changed at the site, other than FCI's decision to pursue profit at the expense of keeping its word.

We consider it a certainty that had FCI been honest in their original PTF applications – i.e., had they asked only for a permit to prove that mining will be profitable, with no requirement for proof of restoration, the project would never have received its ADEQ or EPA permits. Whether the agencies will be as environmentally responsible today, and hold FCI to its commitments, is yet to be seen.

ADEQ has never issued a permit for a commercial in situ leach mine before. ADEQ knows that groundwater has never been fully restored at any in situ leach mine in this country historically. Therefore, ADEQ has no basis upon which it can justify allowing FCI to avoid a demonstration that it can restore groundwater at this site. Undoubtedly, FCI has already presented ADEQ with the legal argument to justify abandoning groundwater cleanup at the pilot test site. But regardless of the technical legalities, ADEQ has made a commitment to the public that groundwater at this site will be protected.

Given how egregious FCI's current proposal is, and how blatantly it defies many years of promises, we hope that ADEQ and EPA will reject FCI's attempt to circumvent its PTF permit obligations. But given the number of meetings FCI and ADEQ have held in recent months, we fear that FCI will eventually badger ADEQ into conceding to FCI's request. We believe that such a fundamental change of direction by the agency, justified by nothing except corporate profit, will only result in unnecessary controversy that will ultimately just waste time and valuable agency resources.

Profit drives the design and purpose of the commercial mine; testing proof of concept is the objective of the PTF. SWVP fully understands that if FCI can use the results of the two-year PTF to prove mining is safe, then commercial-scale mining may be inevitable. But for that to happen, proof there must be. Corporate profit cannot be the only basis for deciding if acid mining is acceptable in Florence, Arizona.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Ron P. Hawks', written in a cursive style.

Ronnie P. Hawks

Jennings Haug Cunningham